BLM SAGE GROUSE PLANNING

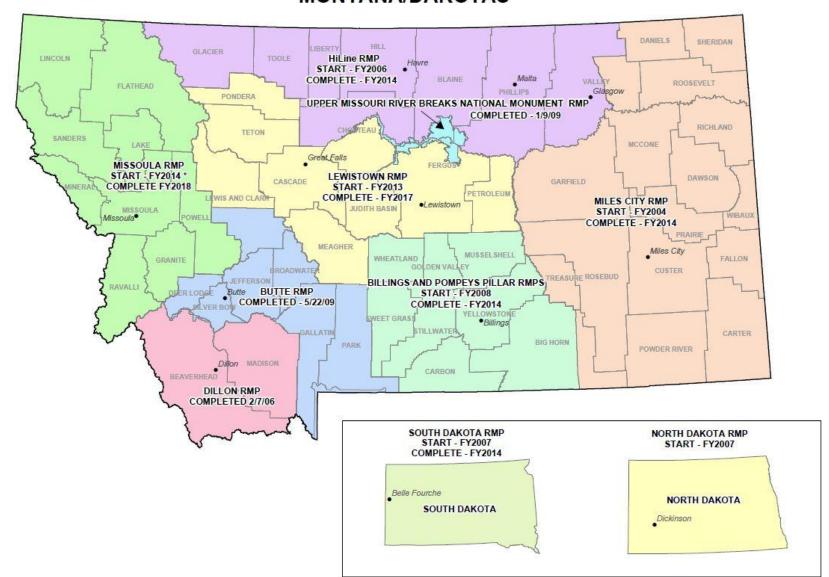


Montana Sage-Grouse Habitat Conservation Advisory Council June 25-26, 2013



age-Grouse Planning Strategy

ONGOING & FUTURE LAND USE PLANNING BOUNDARIES MONTANA/DAKOTAS





Resource Management Plans (RMP)

An RMP:

Describes broad multiple-use direction for BLM-administered public lands that focuses on what resource conditions, uses and visitor experiences should be achieved and maintained over time.

Establishes <u>desired outcomes</u> (goals and objectives) for resource management and includes measurable steps, management actions, and allowable uses to achieve the desired outcomes.

Provides the framework for subsequent implementation decisions carriedout through project specific or activity level plans.

• An Environmental Impact Statement (EIS) accompanies the RMP to provide a comprehensive evaluation of the environmental issues and impacts for the alternatives analyzed in detail.

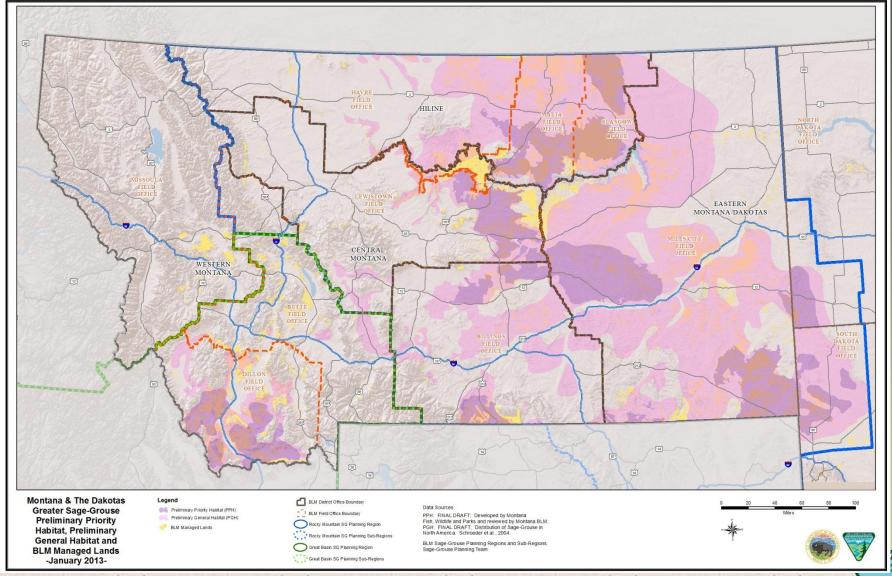


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Strateg

Montana/Dakotas BLM Lands and PPH & PGH



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RMP Mineral Decisions

Leasable Minerals (Coal)

Locatable Minerals (Bentonite)

Fluid Minerals (Oil and Gas)



National Technical Team (NTT) National Greater Sage-Grouse Conservation Measures/Planning Strategy

Mineral Development

The primary potential risks to sage-grouse from energy and mineral development are:

- 1. Direct disturbance, displacement, or mortality of grouse;
- 2. Direct loss of habitat, or loss of effective habitat through fragmentation and reduced habitat patch size and quality; and
- 3. Cumulative landscape-level impacts.
- Sage-Grouse declines are explained in part by lower annual survival of female sage-grouse and that the impact on survival resulted in a population-level decline.
- High site fidelity but low survival of adult sage-grouse combined with lek avoidance by younger birds resulted in a time lag of 3 4 years between the onset of development activities and lek loss.
- The time lag observed by Holloran (2005) in the Anticline matched that for leks that became inactive 3–4 years after natural gas development in the Powder River Basin.
- Analysis of seven oil and gas fields across Wyoming showed time lags of 2–10 years between activities
 associated with energy development and its measurable effects on sage-grouse populations.



RMP Mineral Decisions

Leasable Minerals (Coal)

Locatable Minerals (Bentonite)

Fluid Minerals (Oil and Gas)



Coal Land Use Plan Decisions

Land Use Plan Decisions. Assess whether there are areas suitable for leasing or unsuitable for all or certain types of coal mining operations under the Surface Mining Control and Reclamation Act. Identifies the following:

- Unleased coal lands that are acceptable for further consideration for coal leasing and development and those that are not.
- Areas unsuitable for surface mining of coal.
- For acceptable lands, areas suitable for development by all mining methods or by only certain stipulated mining methods, such as surface or underground mining.
- Any special conditions that must be met during more detailed planning, lease sale, or post-lease activities, including measures required to protect other resource values.
- An estimate of the amount of coal recoverable by either surface or underground mining operations or both. Only those areas that have development potential may be identified as acceptable for further consideration for leasing.
- Areas that have development potential for coal leasing according to the screening process.
- Areas to be withdrawn from further consideration for leasing to protect other resource values and land
 uses that are locally, regionally or nationally important or unique and that are not included in the
 unsuitability criteria.

Implementation Decisions. Offer leases with appropriate conditions and stipulations, process lease exchanges.



National Technical Team (NTT)
National Greater Sage-Grouse Conservation Measures/Planning Strategy

Coal

Priority sage-grouse habitat areas:

Surface mines:

Find unsuitable all surface mining of coal under the criteria set forth in 43 CFR 3461.5 - Criteria for assessing lands unsuitable for all or certain stipulated methods of coal mining.

Sub-surface mines: Grant no new mining leases unless all surface disturbances (appurtenant facilities) are placed outside of the priority sage-grouse habitat area.

For coal mining operations on existing leases:

Sub-surface mining: in priority sage-grouse habitat areas, place any new appurtenant facilities outside of priority areas. Where new appurtenant facilities associated with the existing lease cannot be located outside the priority sage-grouse habitat area, co-locate new facilities within existing disturbed areas. If this is not possible, then build any new appurtenant facilities to the absolute minimum standard necessary.

(o)(1) Criteron Number 15. Federal lands which the surface management agency and the state jointly agree are habitat for resident species of fish, wildlife and plants of high interest to the state and which are essential for maintaining these priority wildlife and plant species shall be considered unsuitable.

Examples of such lands which serve a critical function for the species involved include:

- (i) Active dancing and strutting grounds for sage grouse, sharp-tailed grouse, and prairie chicken;
- (ii) Winter ranges crucial for deer, antelope, and elk;
- (iii) Migration corridor for elk; and
- (iv) Extremes of range for plant species; and

A lease may be issued if, after consultation with the state, the surface management agency determines that all or certain stipulated methods of coal mining will not have a significant long-term impact on the species being protected.

(2) Exemptions. This criterion does not apply to lands: To which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.



Coal

General sage-grouse habitat areas:

Apply minimization of surface-disturbing or disrupting activities (including operations and maintenance) where needed to reduce the impacts of human activities on important seasonal sagegrouse habitats. Apply these measures during activity level planning.

Use additional, effective mitigation to offset impacts as appropriate (determined by local options/needs).

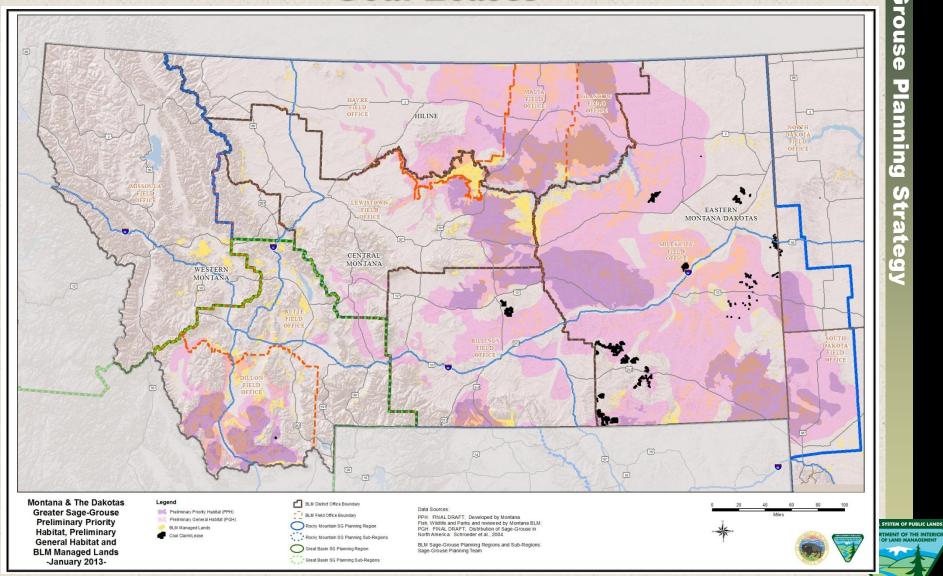




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Montana/Dakotas BLM Lands and PPH & PGH **Coal Leases**



in BLM Resource Management Plan revisions and amendments in Montana

Process lease by application (LBAs) for new coal leases by applying the coal screening process to the application. The coal screening process results would determine which lands may be available for further consideration for coal leasing and development. Appropriate NEPA analysis would be required prior to leasing.





Coal	Preferred Alternative*
General Habitat	Available for Leasing
Priority Habitat	Available for Leasing ⁱ

ⁱExceptions:

Billings RMP – Mining may only occur via sub-surface methods. All mine related appurtenant facilities would be placed outside of the Priority Protection Habitat.

HiLine RMP - No areas have been identified with economic reserves to support future leasing analysis.



RMP Mineral Decisions

Leasable Minerals (Coal)

Locatable Minerals (Bentonite)

Fluid Minerals (Oil and Gas)



Bentonite (Locatable Minerals) Land Use Plan Decisions

- Land Use Plan Decisions. For lands that are open to the location of lode, placer, and mill claims, the claimant has statutory authority under the mining laws to ingress, egress and development of those claims. This authority means that those areas open to mineral entry for the purposes of exploration or development of locatable minerals cannot be unreasonably restricted. Identify the following consistent with the goals and objectives of locatable mineral exploration and development in concert with the protection of natural resources within the planning area.
- Areas recommended for closure to the mining laws for locatable exploration or development (that must be petitioned for withdrawal).
- Any terms, conditions, or other special considerations needed to protect other resource values while conducting activities under the operation of the mining laws.



National Technical Team (NTT)
National Greater Sage-Grouse Conservation Measures/Planning Strategy

Locatable Minerals (Bentonite)

Priority sage-grouse habitat areas:

Propose withdrawal from mineral entry based on risk to the sage-grouse and its habitat from conflicting locatable mineral potential and development.

Make any existing claims within the withdrawal area subject to validity patent exams or buy out. Include claims that have been subsequently determined to be null and void in the proposed withdrawal.

In plans of operations required prior to any proposed surface disturbing activities, include the following:

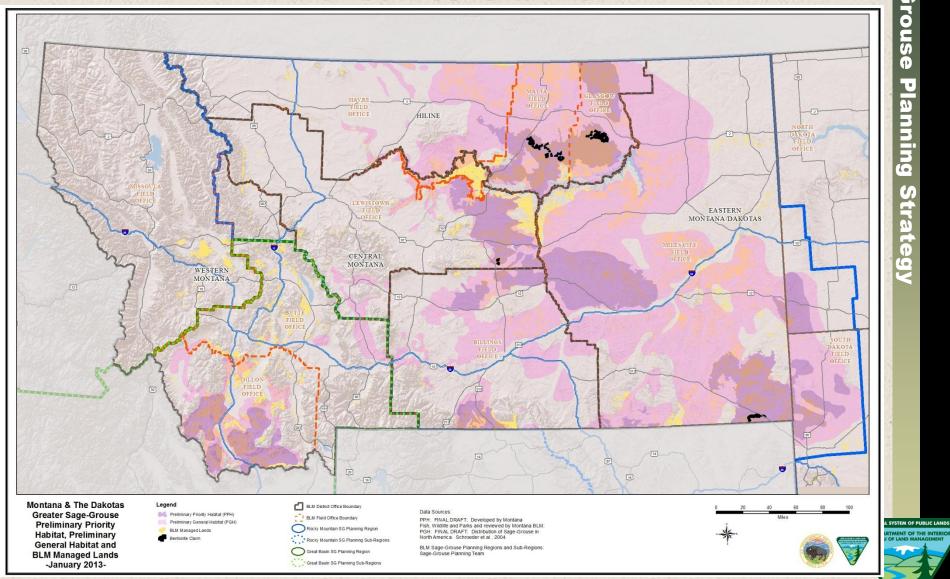
Additional, effective mitigation in perpetuity for conservation. Example: purchase private land and mineral rights or severed subsurface mineral rights within the priority area and deed to US Government). Consider seasonal restrictions if deemed effective.

Make applicable Best Management Practices mandatory as Conditions of Approva within priority sage-grouse habitat.

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Strategy

Montana/Dakotas BLM Lands and PPH & PGH **Bentonite Claims**



Range of Alternatives for Locatable Minerals (Bentonite) in BLM Resource Management Plan revisions and amendments in Montana

Locatable Minerals	Current Management	Resource Conservation	Resource Use
General Habitat	Open	Open	Open
Priority Habitat	Open	Recommended for withdrawal	Open

Majority of known bentonite resources are already claimed and subject to valid existing rights.





Locatable Minerals (Bentonite)	Preferred Alternative*	
General Habitat	Open	
Priority Habitat	Open	



* Miles City, HiLine and Billings RMPs



RMP Mineral Decisions

Leasable Minerals (Coal)

Locatable Minerals (Bentonite)

Fluid Minerals (Oil and Gas)



Fluid Mineral Land Use Plan Decisions

- Areas open to leasing, subject to existing laws, regulations, and formal orders; and the terms and conditions of the standard lease form.
- Areas open to leasing, subject to moderate constraints such as seasonal and controlled surface use restrictions. (These are areas where it has been determined that moderately restrictive lease stipulations may be required to mitigate impacts to other land uses or resource values.)
- Areas open to leasing, subject to major constraints such as no-surface-occupancy stipulations on an area more than 40 acres in size or more than 0.25 mile in width. (These are areas where it has been determined that highly restrictive lease stipulations are required to mitigate impacts to other lands or resource values. This category also includes areas where overlapping moderate constraints would severely limit development of fluid mineral resources.)
- Areas closed to leasing. (These are areas where it has been determined that other land uses or resource
 values cannot be adequately protected with even the most restrictive lease stipulations; appropriate
 protection can be ensured only by closing the lands to leasing.) Identify whether such closures are
 discretionary or nondiscretionary; and if discretionary, the rationale.



Fluid Mineral Land Use Plan Decisions (continued)

- Resource condition objectives that have been established and specific lease stipulations and general/typical conditions of approval and best management practices that will be employed to accomplish these objectives in areas open to leasing.
- For each lease stipulation, the circumstances for granting an exception, waiver, or modification. Identify the general documentation requirements and any public notification associated with granting exceptions, waivers, or modifications.
- Long-term resource condition objectives for areas currently under development to guide reclamation activities prior to abandonment.





Lease Stipulation (Oil and Gas): Conditions of lease issuance that provide protection for other resource values or land uses by establishing authority for substantial delay or site changes or the denial of operations within the terms of the lease contract. Lease stipulations clarify the Bureau's intent to protect known resources or resource values.

- No Surface Occupancy: A fluid minerals leasing constraint that
 prohibits occupancy or disturbance on all or part of the lease
 surface to protect special values or uses. Lessees may exploit the
 fluid mineral resources under the leases restricted by this
 constraint through use of directional drilling from sites outside
 the area.
- Controlled Surface Use: Use and occupancy is allowed (unless restricted by another stipulation), but identified resource values require special operational constraints that may modify the lease rights. CSU is used for operating guidance, not as a substitute, for the No Surface Occupancy (NSO) or timing stipulations. (2) Stipulations to be attached to oil and gas leases to protect specific areas or resources, such as riparian and wetland areas, rivers, sensitive species, viewsheds, and watersheds.
- Timing Limitation (seasonal restriction): A restriction on permitted activities which allows certain activities during specific periods to avoid the disturbance of plant or animal species during critical periods of the life cycle including, mating, parturition, or periods of environmental stress caused by limited food supplies or extreme temperatures.







National Technical Team (NTT) National Greater Sage-Grouse Conservation Measures/Planning Strategy

Oil and Gas

Priority sage-grouse habitat areas:

Unleased Federal Fluid Mineral Estate

Close fluid mineral leasing.

Exception: When there is an opportunity for the BLM to influence conservation measures where surface and/or mineral ownership is not entirely federally owned (i.e., checkerboard ownership).





National Technical Team (NTT) National Greater Sage-Grouse Conservation Measures/Planning Strategy

Oil and Gas

Priority sage-grouse habitat areas:

Leased Federal Fluid Mineral Estate

Apply the following conservation measures through Resource Management Plan (RMP) implementation decisions (e.g., approval of an Application for Permit to Drill, Sundry Notice, etc.).

In this process evaluate, among other things:

I. Whether the conservation measure is "reasonable" with the valid existing rights;

And

2. Whether the action is in conformance with the approved RMP.



National Greater Sage-Grouse Conservation Measures/Planning Strategy

Oil and Gas

Priority sage-grouse habitat areas:

Leased Federal Fluid Mineral Estate (Continued)

Do not allow new surface occupancy on federal leases within priority habitats, this includes winter concentration areas during any time of the year.

Exceptions:

- If the lease is entirely within priority habitats, apply a 4-mile NSO around the lek, and limit permitted disturbances to 1 per section with no more than 3% surface disturbance in that section.
- If the entire lease is within the 4-mile lek perimeter, limit permitted disturbances to 1 per section with no more than 3% surface disturbance in that section.
- Require any development to be placed at the most distal part of the lease from the lek, or, depending on topography and other habitat aspects, in an area that is less demonstrably harmful to sage-grouse.



National Technical Team (NTT) National Greater Sage-Grouse Conservation Measures/Planning Strategy

Oil and Gas

Priority sage-grouse habitat areas:

Leased Federal Fluid Mineral Estate

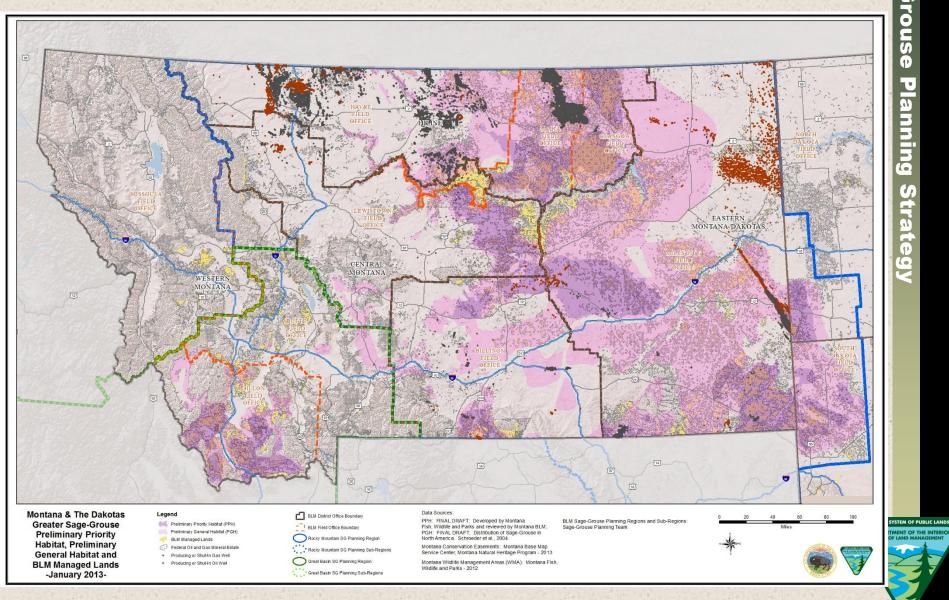
Exceptions (continued):

- Apply a seasonal restriction on exploratory drilling that prohibits surface-disturbing activities during the nesting and early brood-rearing season in all priority sage-grouse habitat during this period.
- Make applicable Best Management Practices (BMPs) mandatory as Conditions of Approval within priority sage-grouse habitat.



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Montana/Dakotas BLM Lands and PPH & PGH Oil and Gas Wells



Range of Alternatives for Fluid Minerals

in BLM Resource Management Plan revisions and amendments in Montana

Fluid Minerals	Current Management	Resource Conservation	Resource Use
General Habitat	NSO ¼ mile of lek and Timing Limit 2 miles of lek March 1 to June 15)	NSO 0.6 mile of lek and Timing Limit 3 miles of lek March 1 to June 15	NSO 1/4 mile of lek and and Timing Limit 1 mile of lek March 1 to June 15
Priority Habitat	NSO ¼ mile of lek	CLOSED	NSO 0.6 mile of lek and CSU for habitat)

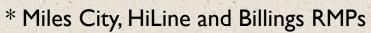




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Fluid Minerals	Preferred Alternative*
General Habitat	OPEN (No Surface Occupancy within 1 mile of a lek and CSU for remainder)
Priority Habitat	OPEN (No Surface Occupancy)







NSO (with Waivers, Exceptions, and Modifications) – flexibility to work across intermingled land ownerships to optimize siting and avoid impacts to priority sage-grouse habitat.







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Waiver's, Exceptions, and Modifications (WEMs)

Waiver – A permanent exemption from a lease s

Waiver – A permanent exemption from a lease stipulation. The stipulation no longer applies anywhere within the leasehold.

Exception – A one-time exemption for a particular site within the leasehold; exceptions are determined on a case-by-case basis; the stipulation continues to apply to all other sites within the leasehold. An exception is a limited type of waiver.

Modification – A change to the provisions of a lease stipulation, either temporarily or for the term of the lease. Depending on the specific modification, the stipulation may or may not apply to all sites within the leasehold to which the restrictive criteria are applied.





WEM Example -

Resource: Greater Sage-Grouse Protection Priority Areas – No Surface

Occupancy

Stipulation: Surface occupancy and use is prohibited within Greater Sage-

Grouse Protection Priority Areas.

Objective: To protect the integrity of the habitat to maintain or improve greater sage-grouse populations.

Exception: The authorized officer, in consultation with Montana Fish, Wildlife and Parks (MFWP), may grant an exception if portions of the area can be occupied without adversely affecting greater sage-grouse habitat.

Modification: The boundaries of the stipulated area may be modified if the authorized officer, in consultation with MFWP, determines that portions of the area can be occupied without adversely affecting greater sage-grouse habitat. The authorized officer, in consultation with MFWP, may also modify the size and shape of the area based on studies documenting actual habitat suitability and/or actual use.

Waiver: The stipulation may be waived if the authorized officer, in consultation with MFWP, determines that the entire leasehold is no longer greater sage-grouse habitat.



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Strategy

The operator is required to file the complete APD package for all operations with the appropriate BLM office.

Upon receipt of a complete APD the BLM will conduct an environmental analysis and prepare an environmental document in conformance with the requirements of NEPA and the regulations of the Council on Environmental Quality (CEQ).

Before approval of the APD, an onsite inspection will be conducted with the operator to further identify site-specific resource protection concerns and requirements. Prior to, or in conjunction with, the onsite inspection, the surface management agency will advise the operator if any special inventories or studies are required, such as for cultural resources or threatened and endangered species.

Best Management Practices (BMPs) are state-of-the-art mitigation measures designed to provide for safe and efficient operations while minimizing undesirable impacts to the environment.

Constraints that are consistent with the rights granted by the lease may be imposed on the location of access roads, well sites, and facility sites or the timing of geophysical exploration, well drilling, or other operations.

Constraints may result from lease stipulations, the surface management agency's review, and environmental analysis of the proposed operations, Notices to Lessees, Onshore Orders, or regulations.



Conservation Actions for pond construction to reduce prevalence of mosquitoes that transmit West Nile virus (from Doherty (2007))

- Increase the size of ponds to accommodate a greater volume of water than is discharged. This will result in un-vegetated and muddy shorelines that breeding Cx. tarsalis avoid. This modification may reduce Cx. tarsalis habitat but could create larval habitat for Culicoides sonorensis, a vector of blue tongue disease, and should be used sparingly. Steep shorelines should be used in combination with this technique whenever possible.
- Build steep shorelines to reduce shallow water (>60 cm) and aquatic vegetation around the perimeter of
 impoundments. Construction of steep shorelines also will create more permanent ponds that are a deterrent to
 colonizing mosquito species like Cx. tarsalis which prefer newly flooded sites with high primary productivity.
- Maintain the water level below that of rooted vegetation for a muddy shoreline that is unfavorable habitat for
 mosquito larvae. Rooted vegetation includes both aquatic and upland vegetative types. Avoid flooding terrestrial
 vegetation in flat terrain or low lying areas. Aquatic habitats with a vegetated inflow and outflow separated by open
 water produce 5-10 fold fewer Culex mosquitoes than completely vegetated wetlands. Wetlands with open water
 also had significantly fewer stage III and IV instars which may be attributed to increased predator abundances in
 open water habitats (Walton and Workman 1998).
- Construct dams or impoundments that restrict down slope seepage or overflow by digging ponds in flat areas
 rather than damming natural draws for effluent water storage, or lining constructed ponds in areas where seepage is
 anticipated.
- Line the channel where discharge water flows into the pond with crushed rock, or use a horizontal pipe to discharge inflow directly into existing open water, thus precluding shallow surface inflow and accumulation of sediment that promotes aquatic vegetation.
- Line the overflow spillway with crushed rock, and construct the spillway with steep sides to preclude the accumulation of shallow water and vegetation.
- Fence pond site to restrict access by livestock and other wild ungulates that trample and disturb shorelines, enrich sediments with manure and create hoof print pockets of water that are attractive to breeding mosquitoes.



Strategy

Mitigation

The BLM will apply appropriate mitigation measures and conservation actions to BLM-authorized activities to avoid, minimize, rectify, reduce, or compensate for impacts if an evaluation of the project area indicates the presence of important wildlife species, seasonal wildlife habitat, or other resource concerns. The sequence of mitigation action will be:

Step I. Avoid - Adverse impacts to resources are to be avoided and no action shall be permitted if there is a practicable alternative with less adverse impact.

Step 2. Minimize - If impacts to resources cannot be avoided, appropriate and practicable steps to minimize adverse impacts must be taken.

Step 3. Compensate - Appropriate and practicable compensatory mitigation is required for unavoidable adverse impacts which remain. The amount and quality of compensatory mitigation may not substitute for avoiding and minimizing impacts.



Even after avoiding and minimizing impacts, projects that will cause adverse impacts to resources typically require some type of compensatory mitigation.

Compensatory mitigation refers to the restoration, establishment, enhancement, or in certain circumstances preservation of resources for the purpose of offsetting unavoidable adverse impacts.

The BLM will determine the appropriate form and amount of compensatory mitigation required.

Methods of compensatory mitigation include restoration, establishment, enhancement and preservation.





- Restoration: Re-establishment or rehabilitation of a resource with the goal of returning natural or historic functions and characteristics to a currently degraded area. Restoration may result in a gain in function or acres, or both.
- Establishment (Creation): The development of a resource where that resource did not previously exist through manipulation of the physical, chemical and/or biological characteristics of the site. Successful establishment results in a net gain in acres and function.
- Enhancement: Activities conducted within existing resources that heighten, intensify, or improve one or more functions. Enhancement is often undertaken for a specific purpose such as to improve water quality, floodwater retention or wildlife habitat. Enhancement results in a gain in function, but does not result in a net gain in acres.
- Conservation: The permanent protection of ecologically important resources
 through the implementation of appropriate legal and physical mechanisms (i.e.
 conservation easements, title transfers). Preservation may include protection
 of areas adjacent to resource locations as necessary to ensure protection or
 enhancement of the ecosystem. Preservation does not result in a net gain of
 acres and may only be used in certain circumstances, including when the
 resources to be preserved contribute significantly to ecological sustainability.



There are times when mitigating project impacts through onsite mitigation alone, may not be possible or sufficient to adequately mitigate impacts and achieve resource objectives. In these cases, it may be appropriate to consider offsite mitigation as a feature of one or more of the alternatives in the impact analysis.

Offsite mitigation is generally appropriate when the authorized officer determines that impacts cannot be mitigated to an acceptable level on site and it is expected that the land use authorization as submitted would not be consistent with the BLM's resource objectives.

The BLM may expressly condition its approval of an action on the applicant's commitment to take actions, and the BLM may, if necessary, seek appropriate enforcement action to ensure the terms of the contract are met.



